

What is claimed is:

[Claim 1] An interface module for an electronic device, comprising a card including a body and at least one component selected from the group including memory, a processor, and a power source, and the body having a longitudinal axis, wherein the body has a cross-sectional shape other than one bounded by substantially parallel major surfaces.

[Claim 2] The interface module of claim 1, wherein the cross-sectional shape of the body is substantially circular.

[Claim 3] The interface module of claim 1, wherein the cross-sectional shape of the body is substantially elliptical.

[Claim 4] The interface module of claim 1, further comprising electrical contacts spaced along the longitudinal axis of the body.

[Claim 5] The interface module of claim 4, wherein the electrical contacts on the body extend substantially around the periphery of the body.

[Claim 6] The interface module of claim 1, further comprising a head at one end of the body, the head extending outward from the longitudinal axis of the body a greater distance than the body.

[Claim 7] The interface module of claim 6, wherein the cross-sectional shape of the head is selected from the group comprising substantially circular, substantially elliptical, and a shape having at least three substantially straight sides.

[Claim 8] An interface module for an electronic device, comprising a card including a body and at least one component selected from the group including memory, a processor, and a power source, and the body having a longitudinal axis, wherein the body has a cross-sectional shape other than substantially planar, and wherein a substantially planar shape is one having a height to width ratio of less than approximately 0.5.

[Claim 9] The interface module of claim 8, wherein the cross-sectional shape of the body is substantially rectangular.

[Claim 10] The interface module of claim 8, wherein the cross-sectional shape of the body is a shape other than a rectangle and has at least three substantially straight sides.

[Claim 11] The interface module of claim 8, further comprising electrical contacts spaced along the longitudinal axis of the body.

[Claim 12] The interface module of claim 11, wherein the electrical contacts on the body extend substantially around the periphery of the body.

[Claim 13] The interface module of claim 12, further comprising a head at one end of the body, the head extending outward from the longitudinal axis of the body a greater distance than the body.

[Claim 14] The interface module of claim 13, wherein the cross-sectional shape of the head is selected from the group comprising substantially circular, substantially elliptical, and a shape having at least three substantially straight sides.

[Claim 15] An interface module for an electronic device, comprising a card including a body and at least one component selected from the group including memory, a processor, and a power source, and the body having a longitudinal axis, wherein the cross-sectional shape of the body is selected from the group including substantially circular, substantially elliptical, substantially rectangular and having a height to width ratio of at least 0.5, and a shape other than a rectangle having at least three substantially straight sides.

[Claim 16] An interface module assembly for an electronic device, comprising:

a card reader defining an opening and having a longitudinal axis;
a card reciprocally mounted to the card reader, disposed in the opening, including a body and at least one component selected from the group including memory, a processor, and a power source, and the body having a longitudinal axis; and
electrical contacts spaced along the longitudinal axis of the card body and of the card reader, wherein the electrical contacts on the card reader and the electrical contacts on the card body are in close and complementary registration,
wherein the cross-sectional shape of the body is selected from the group including substantially circular, substantially elliptical, substantially rectangular and having a height to width ratio of at least 0.5, and a shape other than a rectangle having at least three substantially straight sides.

[Claim 17] The interface module assembly of claim 16, wherein the electrical contacts on the card body substantially encircle the body.

[Claim 18] The interface module assembly of claim 16, wherein the electrical contacts on the card reader at least partially encircle the card body.

[Claim 19] The interface module assembly of claim 16, wherein the electrical contacts on the card reader at least partially secure the card in position.

[Claim 20] The interface module assembly of claim 16, wherein at least one electrical contact on the card reader includes more than one point of contact on a corresponding card body electrical contact.

[Claim 21] The interface module assembly of claim 16, further comprising a head at one end of the body, the head extending outward from the longitudinal axis of the body a greater distance than the body, wherein the cross-sectional shape of the head is selected from the group including substantially circular, substantially elliptical, and a shape having at least three substantially straight sides, and wherein the card reader opening defines a recessed area to receive the body and another recessed area to receive the head.

[Claim 22] A mobile terminal comprising:

a housing;

an interface module assembly disposed in the housing, including:

a card reader defining an opening; and

a card reciprocally mounted to the card reader, disposed in the opening, including a body and at least one component selected from the group including memory, a processor, and a power source,

wherein the cross-sectional shape of the body is selected from the group including substantially circular, substantially elliptical, substantially rectangular and having a height to width ratio of at least 0.5, and a shape other than a rectangle having at least three substantially straight sides.

[Claim 23] The mobile terminal of claim 22, wherein the mobile terminal is approximately the size of a conventional fountain pen.

[Claim 24] A method of making an interface module, comprising:
selecting a cross-sectional shape of the interface module;
providing a frame including material for structural support and material for active leads including bonding pads;
selecting a position for a die within the limits of the prospective interface module;
placing the die in position;
supporting the die by means for structural support;
bonding the bonding pads of the active leads to the die;
leaving a length of each active lead exposed outside of the limits of the prospective interface module;
encapsulating the die and active leads to form the body of the interface module;
trimming away the frame material used for structural support that is outside the limits of the interface module body; and
wrapping and securing the exposed active leads around the interface module.

[Claim 25] The method of making an interface module of claim 24, wherein selecting the cross-sectional shape of the body comprises selecting a shape from the group including substantially circular, substantially elliptical, and a shape having at least three substantially straight sides.

[Claim 26] The method of claim 24, wherein supporting the die by means for structural support comprises supporting the die with a portion of the frame.

[Claim 27] The method of claim 24, wherein encapsulating the die and active leads in the interface module comprises encapsulating the die and active leads using at least one material selected from the group including an epoxy encapsulate, preformed top and bottom elements affixed to each other, and a plastic.

[Claim 28] The method of claim 24, wherein wrapping and securing the exposed active leads around the interface module comprises wrapping and securing the active leads using at least one method selected from the group including tack welding, soldering, and adhesive bonding.